What is claimed is:

1. In a method for performing failure analysis on a printed circuit board having a circuit trace thereon and a solder mask over the circuit trace, the improvement comprising:

removing the solder mask from the printed circuit board using an ultra violet laser, to expose the circuit trace without damaging the circuit trace.

2. The method of claim 1, wherein the ultraviolet laser has a wavelength of from about 3 nanometers to about 400 nanometers.

3. The method of claim 1, wherein the ultraviolet laser has a wavelength from the group consisting of 355 nanometers and 266 nanometers.

4. The method of claim 1, wherein the ultraviolet laser is one of the group consisting of a solid state laser, a gas laser, a dye laser, and an excimer laser.

5. The method of claim 4, wherein the ultraviolet laser is a yttrium aluminum garnet laser.

6. The method of claim 1, wherein the solder mask comprises an organic compound.

7. The method of claim 1, wherein the solder mask comprises a thermosetting resin.

8. The method of claim 7, wherein the solder mask comprises a film selected from the group consisting of polyimide and cyanate ester resins and a dual solution photo-curing type material containing an unsaturated resin that includes carboxylic acid and a polyepoxy compound.

9. A method comprising the steps of:

providing a printed circuit board having a circuit trace thereon and a solder mask over the circuit trace;

removing the solder mask from the printed circuit board using an ultra violet laser, to expose the circuit trace without damaging the circuit trace; and

performing failure analysis on the circuit trace of the printed circuit board.

10. The method of claim 8, wherein the ultraviolet laser has a wavelength of from about 3 nanometers to about 400 nanometers.

11. The method of claim 9, wherein the ultraviolet laser has a wavelength from the group consisting of 355 nanometers and 266 nanometers.

12. The method of claim 9, wherein the ultraviolet laser is one of the group consisting of a solid state laser, a gas laser, a dye laser, and an excimer laser.

13. The method of claim 12, wherein the ultraviolet laser is a yttrium aluminum garnet laser.

14. The method of claim 9, wherein the solder mask comprises an organic compound.

15. The method of claim 9, wherein the solder mask comprises a thermosetting resin.

16. The method of claim 15, wherein the solder mask comprises a film selected from the group consisting of polyimide and cyanate ester resins and a dual solution photo-curing type material containing an unsaturated resin that includes carboxylic acid and a polyepoxy compound.

17. A printed circuit board suitable for failure analysis, the printed circuit board being prepared by a method comprising the steps of:

providing a printed circuit board having a circuit trace thereon and a solder mask over the circuit trace;

removing the solder mask from the printed circuit board using an ultra violet laser, to expose the circuit trace without damaging the circuit trace, thereby readying the printed circuit board for performing failure analysis on the circuit trace thereof.

18. The printed circuit board of claim 17, wherein the ultraviolet laser has a wavelength of from about 3 nanometers to about 400 nanometers.

19. The printed circuit board of claim 17, wherein the ultraviolet laser has a wavelength from the group consisting of 355 nanometers and 266 nanometers.

20. The printed circuit board of claim 17, wherein the ultraviolet laser is one of the group consisting of a solid state laser, a gas laser, a dye laser, and an excimer laser.

21. The printed circuit board of claim 20, wherein the ultraviolet laser is a yttrium aluminum garnet laser.

22. The printed circuit board of claim 17, wherein the solder mask comprises an organic compound.

23. The method of claim 17, wherein the solder mask comprises a thermosetting resin.

24. The printed circuit board of claim 23, wherein the solder mask comprises a film selected from the group consisting of polyimide and cyanate ester resins and a dual solution photo-curing type material containing an unsaturated resin that includes carboxylic acid and a polyepoxy compound.

25. A device suitable for failure analysis, the device being prepared by a method comprising the steps of:

providing a substrate having a circuit trace thereon and a solder mask over the circuit trace;

removing the solder mask from the substrate using an ultra violet laser, to expose the circuit trace without damaging the circuit trace, thereby readying the substrate for performing failure analysis on the circuit trace thereof.

26. The device of claim 25, wherein the ultraviolet laser has a wavelength of from about 3 nanometers to about 400 nanometers.

27. The device of claim 25, wherein the ultraviolet laser has a wavelength from the group consisting of 355 nanometers and 266 nanometers.

28. The device of claim 25, wherein the ultraviolet laser is one of the group consisting of a solid state laser, a gas laser, a dye laser, and an excimer laser.

29. The device of claim 28, wherein the ultraviolet laser is a yttrium aluminum garnet laser.

30. The device of claim 25, wherein the solder mask comprises an organic compound.

31. The device of claim 25, wherein the solder mask comprises a thermosetting resin.

32. The device of claim 25, wherein the solder mask comprises a film selected from the group consisting of polyimide and cyanate ester resins and a dual solution photo-curing type material containing an unsaturated resin that includes carboxylic acid and a polyepoxy compound.